

Claims

We claim:

1. A printed article comprising:

a substrate having a top surface and a bottom surface;

at least one image printed on at least one surface of the substrate; and

a lens array printed on at least one surface of the substrate, wherein the lens array comprises a plurality of spaced-apart convex lenses separated by substantially flat portions.

2. The printed article of claim 1, wherein the substrate is a printable substrate.

3. The printed article of claim 1, wherein images are printed on the top surface of the substrate.

4. The printed article of claim 1, wherein images are printed on the bottom surface of the substrate.

5. The printed article of claim 1, wherein the lens array is printed on the top surface of the substrate above the printed images.

6. The printed article of claim 1, wherein the lens array is printed on the bottom surface of the substrate.

7. The printed article of claim 1, wherein the lens array is printed on at least one surface of the substrate.

8. The printed article of claim 1, wherein the lens array is printed on a first surface of the substrate.

9. The printed article of claim 1, wherein the images are centered directly under each lens of the lens array.

10. The printed article of claim 1, wherein the images are shifted horizontally in relation to the lenses of the lens array.

5 11. A lenticular imaging system comprising:
a substrate having a top surface and a bottom surface;
a plurality of images printed on at least one surface of the substrate; and
a lenticular lens array printed on at least one surface of the substrate, wherein the
lenticular lens array comprises a plurality of spaced-apart, elongated, parallel, convex lenses,
with each lens separated by a substantially flat portion.

12. The lenticular imaging system of claim 11, wherein the lenticular lens array is printed on at least one surface of the substrate..

13. The lenticular imaging system of claim 11, wherein the plurality of images are centered directly under each lens of the lens array.

15 14. The lenticular imaging system of claim 11, wherein the plurality of images are shifted horizontally in relation to the lenses of the lens array.

15. The lenticular imaging system of claim 11, wherein the plurality of spaced-apart, elongated, parallel, convex lenses are non-focusing lenses.

16. The lenticular imaging system of claim 11, wherein the plurality of spaced-apart, elongated, parallel, convex lenses are spaced-apart by a fixed distance from the plurality of images printed on at least one surface of the substrate.

17. The lenticular imaging system of claim 16, wherein the plurality of spaced-apart, elongated, parallel, convex lenses are focusing lenses.

18. A method of making a printed article, the steps comprising:
providing a printable substrate with a top surface and a bottom surface;
applying at least one image on at least one surface of the substrate; and
applying a lens array on at least one surface of the substrate, wherein the lens array comprises a plurality of spaced-apart convex lenses separated by substantially flat portions.

19. The method of claim 18, wherein the at least one image is applied by printing on the at least one surface of the substrate.

20. The method of claim 18, wherein the lens array is applied by printing on the at least one surface of the substrate on top of the at least one image.